PRODUCT QUALITY AND CUSTOMER RETENTION IN MANUFACTURING COMPANIES IN NIGERIA

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A PROJECT WRITTEN AND SUBMITTED TO THEDEPARTMENTOF BUSINESSADMINISTRATION, FACULTY OF MANAGEMENT SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARDOF BACHELOR OF SCIENCE(B.Sc) DEGREE IN BUSINESS ADMINISTRATION, OF THE UNIVERSITY OF BENIN, BENIN CITY.

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DECLARATION

I, Amegor Etinosa, do hereby declare that this project is entirely undertaken by me and a product of my composition. The work embodied in this project has not been previously submitted for the award of any other degree. All references made to works of other persons have been duly acknowledged.

_____ _____

Amegor Etinosa **Date**

CERTIFICATION

This is to certify that the research study entitled "Product Quality and Customer Retention in Manufacturing Companies in Nigeria" was conducted under the supervision of Prof. Ibrahim Shaibu, in partial fulfillment of the requirements for the Bachelor of Science (BS.c) at University of Benin. The research adhered to ethical guidelines and standards, and all findings presented are the original work of the undersigned.

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Head of Department

DEDICATION

I dedicate this project to God Almighty and my parents Mr and Mrs Amegor whose love has been my source of strength.

ACKNOWLEDGMENTS

I would like to express my profound and sincere gratitude to God Almighty for the gift of life, wisdom, strength and inspiration granted unto me throughout the course of carrying out this project.

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And lastly, I want to say a very big thank you, to my best friend D.U. Peace for her love, support and contribution towards this project.

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ABSTRACT

This study was carried out to examine the relationship product quality on customer retention in manufacturing companies in Nigeria using Uniben table water, Ugbowo, Benin City, Edo State. Specifically, the study examined the relationship between product reliability and customer retention. The study also examine the relationship between perceived product quality and customer retention. The study further examine the relationship between product conformance and customer retention. The study employed the survey descriptive research design. A total of 150 responses were validated from the survey using a structured questionnaire to collect data from the respondents, out of which 150 copies were filled and retrieved and all copies were found to be valid and useful for this study because they were properly filled. To conduct the analysis , the study utilized statistical package for social sciences (SPSS 22.0) which were presented in tables, mean and standard deviation. Linear Regression analysis was used to test each hypothesis. From the responses obtained and analyzed, the findings revealed that there is no significant relationship between product reliability and customer retention. Also, there is a significant relationship between perceived product quality and customer retention. Lastly, there is a significant relationship between product conformance and customer retention. The study thereby recommend that manufacturing companies should be concerned about the quality of their products. This will help them to maintain a desirable customer base. Also, manufacturing company should produce quality products that the consumers expect. Products that can stand the taste of time and compete favorably in the market place.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

A 2023 report by McKinsey & Company underscores the strong correlation between exceeding customer expectations through outstanding product quality and building a customer retention base. It's worth noting that while product quality is a crucial factor, it's not the only element influencing customer retention . Other aspects like customer service, pricing strategy, and brand values also play a role. However, the statement correctly emphasizes the foundational importance of outstanding product quality in building a loyal customer base and achieving long-term business success.

For decades, the recipe for organisational success has been a potent blend of crafting high-quality products and swiftly adapting to evolving consumer demands. Product quality is crucial for manufacturing competitive advantage, satisfying customer expectations, and enhancing brand reputation. Continuous improvement reflects commitment to meeting evolving consumer needs and fostering trust between the organisation and its customers.

This study investigates the relationship between product quality and customer retention in the Nigerian bottled water industry, using UNIBEN Table Water as a case study. Product quality is crucial for meeting regulatory standards and maintaining consumer trust. Customer retention is vital for UNIBEN Table Water, as it directly impacts revenue streams and market share. The study aims to assess the perceived quality of UNIBEN

Table Water, examine factors influencing customer retention and loyalty, analyze strategies implemented by the company to uphold product quality standards, explore the effectiveness of customer retention initiatives, and identify potential areas for improvement. The research aims to provide valuable insights for academic research and practical industry applications, highlighting the importance of understanding product quality and customer retention for the sustained success of manufacturing industries in Nigeria.

1.2. Statement of Research Problem

The Nigerian manufacturing industry faces challenges in maintaining product quality and customer retention. Key issues include inconsistent product quality due to inadequate control measures, limited access to modern technology, and inadequate personnel training. Lack of effective quality management systems also contributes to variations in product quality. The industry operates in a competitive environment with both domestic and international competitors, and must align their offerings with evolving consumer preferences. Economic factors like fluctuating exchange rates, inflation, and supply chain disruptions also pose significant obstacles to maintaining product quality and customer retention. To remain competitive and sustainable, Nigerian manufacturing companies must implement effective strategies to enhance quality management practices and foster long-term customer relationships.

1.3. Research Questions

a. Does product reliability affect customer retention in manufacturing industries?

b. Does perceived quality affect customer retention in manufacturing industries?

c. Does product conformance affect customer retention in manufacturing industries?

1.4 Research Objectives

a. Examine the relationship between product reliability and customer retention.

b. Examine the relationship between perceived quality and customer retention.

c. Examine the relationship between product conformance and customer retention.

1.5. Research Hypotheses

H_0: There is no significant relationship between product reliability and customer retention.

H_1: There is significant relationship between product reliability and customer retention.

H_0: There is no significant relationship between perceived quality and customer retention.

H_1: There is significant relationship between perceived quality and customer retention.

H_0: There is no significant relationship between product conformance and customer retention.

H_1: There is significant relationship between product conformance and customer retention.

1.6. Scope of the Study

The study focuses on product quality and customer retention in manufacturing companies using UNIBEN Table Water in Benin City, Nigeria, as a case study. It will further delve into examining the relationships between product reliability and customer retention, product durability and customer retention, and product conformance and customer retention.

The study evaluates UNIBEN Table Water's quality, customer retention, and loyalty, analyzing strategies, effectiveness, and improvement areas. It underscores the importance of understanding product quality and customer retention for Nigerian manufacturing success.

1.7. Significance of the Study

Although the importance of offering high-quality products to retain customers is a well-established topic in the business community, some companies continue to neglect it. This research aims to remind and educate manufacturing firms about the imperative of consistently producing quality products and upholding high standards to satisfy customers and prevent them from switching to competitors. Furthermore, future researchers can utilize this study as a literature review, enabling students conducting studies in this area to critically assess existing literature. Ultimately, the findings of this study significantly contribute to the academic understanding of how product quality affects customer retention in manufacturing industries.

1.8. Limitations of Study

a. Sample Size: The smallness of the sample size might affect the accuracy of the project. which will limit the generalisability of the findings, The study might be compromised due to the sampling bias in participant selection, resulting in a non-representative sample.

b. Limited Scope: The project's exclusive focus is on Uniben Table Water as case study, which may limit the findings and conclusions, applicability to other manufacturing industries . The conclusions might not apply to businesses with various organisational structures or those in different industries.

c. Organisational Constraints: Confidentiality requirements or internal policies in Uniben Table Water can limitaccess to information and hinder the project's ability to gather data from key stakeholders, potentially limiting the project's comprehensiveness and accuracy.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

The Nigerian manufacturing sector plays a vital role in the country's economic development, contributing significantly to GDP and employment. However, the sector faces numerous challenges, including intense competition, infrastructural limitations, and fluctuating market conditions. In this context, ensuring product quality and fostering customer retention are crucial for Nigerian manufacturers to survive and thrive. The essence of this chapter is to analyze and explain how product quality and customer retention relates to Uniben Table Water. also, This chapter is to critically review pertinent literature that might help to clarify the research topic and, at the same time, honor the contributions of academics who have made significant earlier contributions to related fields of study.

2.2. Conceptual Review:

2.2.1 Customer Retention

Customer retention refers to the practice of encouraging existing customers to continue doing business with you, rather than switching to competitors. This is crucial for businesses as acquiring new customers is generally 5-10 times more expensive than retaining existing ones (Bain & Company, 2022). customer retention can be mentioned as the process of buying products and services within certain time span in a repetitive nature (Sirdeshmuk et al., 2002). Along with this, in general, when there is higher cost of

customer acquisition in comparison with the lower cost of serving, it tends to make the repetition of customers and consequently lead to increase in profitability. Hence, in this circumstance firms are advised to increase the customer retention level (Edward and Sahadev - 2011). Customer retention has been traditionally associated with perceived service quality, perceived value and customer satisfaction (Bloemer et al., 1999). Quality of the product is the major factor in customer retention. Customer retention is crucial for a company's success, especially in Nigerian manufacturing. Factors influencing retention include product quality, customer service, brand reputation, and value proposition. High-quality products, exceptional customer service, ethical business practices, and transparent communication are essential. A strong brand image enhances customer trust and loyalty. Unique value propositions, such as competitive pricing and customization options, are better positioned to retain customers. Measurement metrics for customer retention include repeat purchase rate and customer churn rate. These metrics help companies maintain revenue, build brand loyalty, and gain a competitive edge.It necessitates a comprehensive strategy that takes into account elements like brand experience, and customer service. Businesses can strengthen their bonds with customers, encourage loyalty, and promote sustainable growth by placing a high priority on product quality

2.2.2 Product Quality

A product is a good, service, or idea that satisfies a need or want and is offered to a market for exchange(American Marketing Association 2020)

Classification of Product

There are two common classification of product which are by Target customer and Tangibility.

Target customer

a. **Consumer Products:** These are goods and services intended for individual consumers to satisfy their personal needs and wants. Further subcategories based on buying behavior exist:

i. **Convenience Products:** Frequently purchased, low-priced items requiring minimal planning and comparison e.g, groceries, toothpaste. (Kotler, P., & Armstrong, G. 2021).

ii. **Shopping Products:** Consumers compare price, features, and quality before buying e.g, clothing, furniture, electronics. (American Marketing Association 2020).

iii. **Specialty Products:** Consumers have strong brand loyalty and are willing to make an effort to acquire them e.g, luxury cars, designer clothing.

iv. **Unsought Products:** Consumers may not be aware of them or need them until actively promoted e.g, life insurance, medical procedures. (McCarthy, E. J., & Perreault, W. D. 1993).

b. **Industrial Products**: These are goods and services used by businesses in their production processes or operations. They can be:

i. **Raw Materials:** Unprocessed materials used in making other products e.g, lumber, cotton, oil. (Boyer, K. W., & Verma, A. (2004).

ii. **Component Parts:** Finished or partially finished items used in assembling other products e.g, screws, engines, microchips. (Heizer, J. H., & Render, B. (2021).

iii. **Capital Goods:** Durable products used in production for a long time e.g,machinery, buildings, vehicles. (Slack, N., Chambers, S., & Johnston, R. (2010).

iv. **Supplies and Services:** Consumable items or services used in daily operations e.g, cleaning supplies, maintenance services. (Krajewski, L. J., Ritzman, L. P., & Malhotra, M. K. (2016).

Tangibility

a. **Tangible Products**: Physical goods that can be seen and touched e.g, food, clothing, cars. (Kotler, P., & Armstrong, G. 2021).

b. **Intangible Products:** Services, experiences, and ideas that cannot be physically held e.g, education, healthcare, entertainment. (S Lovelock, C. H., & Wirtz, J. 2017).

2.2.3 Quality

The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs(American Society for Quality 2013).

Dimensions of Quality

The concept of "quality" can be subjective and multifaceted. To help us objectively assess and improve products, David Garvin, in his seminal article "Competing on the Eight Dimensions of Quality" (1987), proposed a framework with eight key dimensions:

1. **Performance:** This refers to the primary operating characteristics of a product or service. Does it fulfill its intended purpose effectively and efficiently?
2. **Features:** These are the additional characteristics that enhance the basic functionality, offering benefits or value beyond the core offering.
3. **Reliability:** This dimension focuses on the consistency and dependability of performance over time. Can customers trust the product or service to perform as expected?
4. **Conformance:** This refers to the degree to which a product or service meets pre-established standards and specifications. How well does it match its design and intended use?
5. **Durability:** This dimension relates to the product's lifespan and how long it can maintain its functionality before needing repair or replacement.
6. **Serviceability:** This addresses the ease and speed of repair or maintenance when the product or service fails or needs adjustments.
7. **Aesthetics:** This encompasses the sensory appeal and overall design of the product or service. How pleasing is it to the senses?

8. **Perceived Quality:** This captures the customer's overall impression and subjective judgment of the product or service's excellence. How well does it meet their expectations and create a positive image?

Product quality, as defined by Waller, Mueller and Heifert (2002) is based on the personal experience of potential customers with the brand i.e, it reflects their evaluation of products they purchase with respect to quality characteristics such as durability, functionality and reliability. Product quality is one of the important tools to maintain the competitive advantage in market which is designed to undergo the product development process to achieve the consumer satisfaction and upgrade the quality in performance. Product quality is crucial for customer satisfaction, brand reputation, and cost savings. Nigerian manufacturing companies that prioritize quality can command premium prices and gain a competitive advantage. Factors influencing product quality include quality management systems (QMS), strong supplier relationships, and employee training and skill development. Addressing infrastructure constraints, ensuring compliance with regulatory standards, and understanding market dynamics and consumer preferences are essential for improving operational efficiency and product quality.

Strategies for enhancing product quality include continuous improvement, investing in technology and innovation, and fostering supplier collaboration. Continuous improvement allows companies to identify and address quality issues proactively, while investment in technology and innovation can improve product design, streamline production processes, and enhance quality control measures. Developing strategic

partnerships with reliable suppliers and conducting regular quality audits can help maintain high standards of product quality and address supply chain risks.

2.3. Theoretical Review

In the fiercely competitive landscape of manufacturing industries, the relationship between product quality and customer retention holds paramount importance. This theoretical review delves into the existing body of knowledge, exploring how achieving and maintaining high-quality products acts as a cornerstone for securing and nurturing a loyal customer base. By examining diverse perspectives and frameworks, we will dissect the multifaceted nature of product quality, encompassing its various dimensions and influencing factors. Furthermore, we will investigate the intricate pathways through which quality directly and indirectly impacts customer retention. This section discusses prominent theories on product quality and customer retention.

Theories on Product Quality

Product Quality has diverse theories which provides an understanding on product quality and how to improve the quality of products. Some theories relating to product quality are Genichi Taguchi Method, Total Quality Management, Quality Function Deployment and Cost of Quality.

2.3.1. Genichi Taguchi Method

Based on the work of Genichi Taguchi three concepts are important to understand Taguchi approach and method. These concepts are qualty robustness, quality loss function and target specifications

Quality Robustness: Quality robust products are products that can be produced uniformly and consistently to a variety of adverse manufacturing and environmental conditions. The idea is to remove the effects of adverse conditions instead of removing the causes Taguchi suggest that removing the effects is often cheaper than removing the causes and more effective in producing a robust effect. In this way small variations in materials and process do not destroy product quality Taguchi also believes that in this manner products can be produced more and will perform more consistently in service under a verity of conditions.

Quality Loss Function: Taguchi has also defined what he calls a quality loss function. A quality loss functions (QLF) identifies all costs connected with poor quality and shows how these costs increase as the product moves away from being exactly what the customer wants. These costs include not just the cost to the customer in terms of dissatisfaction but also: warranty and service costs, internal inspection repair, and scrap costs; and costs that can best be described as costs to society. The quality loss function takes the general form of a simple quadratic formula

$L=D^2C$

Where: L = Loss; D^2= Square of the deviation from the target value; and C = Cost of avoiding the deviation

All the losses to society due to poor performance of a product are included in the loss function. The smaller the loss, the more desirable the product. The farther the product is from the target specification the more severe the loss.

Target specifications: Taguchi observed that the traditional way of looking at specifications (that is the product is good until it fails to fall within the tolerance limits) is too simplistic Target specification is a philosophy of continuous improvement to bring the product exactly on target. Additionally, the further the product is from target, the more likely will be problems of interfaces and fits with other components of the product.

Implementation of the Taguchi Method

The Taguchi method requires a three-phase implementation. The process is applied during the development and design stage of a product's life cycle. The three phases are system design, parameter design and tolerance design.

System Design: The system design phase is the Investigation phase. The initial design specifications are used to define the variables in the design (i.e. materials, strengths, heat transfer. etc) that are believed to be important. These variables become the parameter of the process.

Parameter Design: The parameter design phase is the experimental stage. At this point. experiments are used to determine the importance of parameters. This information is designed to show how the parameters impact expected loss. The idea is to find which of the parameters are significant and which are not. The Taguchi method also includes cost reduction. Therefore, the focus at this stage is not only quality, but cost reduction. Costs are to be reduced where changes can be made in product or process without affecting quality. The earlier the potential loss of a parameter can be identified, the better the potential problem can be addressed by design or process changes.

Tolerance Design: At this stage the tolerances for each parameter are determined. Under the Taguchi method, the tolerance that are critical to producing a quality robust product are tightened and those that are found to be unimportant one lessened.

2.3.2. Total Quality Management (TQM)

Total Quality Management is a management philosophy that aims to improve the quality of goods and services by involving all employees in the organisation in a continuous process of improvement. The foundation of TQM is the idea that everyone in the organisation shares responsibility for quality rather than having it assigned to just one department or person.

Total Quality Management involves a number of key practices, such as:

a. **Data-driven decision making:** TQM emphasizes the importance of using data and metrics to make decisions, rather than relying on intuition or guesswork.
b. **Continuous improvement:** TQM is based on the principle of continuous improvement, which involves ongoing search for methods to improve processes, goods, and services.
c. **Employee involvement:** TQM entails involving all employees in the organisation to be empowered to make decisions and take action to improve quality.
d. **Customer focus:** TQM places a strong emphasis on comprehending and satisfying the needs of both internal and external customers.

e. **Process management:** TQM focuses on managing processes, rather than just products or services. This involves identifying and analyzing key processes, and making improvements to increase efficiency and quality.

By adopting TQM principles, organisations can improve the quality of their products and services, reduce waste and inefficiency, and increase customer satisfaction. However, implementing TQM can be challenging, as it requires a significant cultural shift within the organisation, and a commitment to continuous improvement from all employees.

2.3.3. Quality Function Deployment(QFD)

Quality function deployment is a customer-centric approach translates customer needs into product design and development specifications. It ensures products align with customer expectations and enhances quality through understanding needs at each stage of development. Quality Function Deployment consists of the following steps:

a. **Identifying Customer Requirements:** The process begins with identifying and understanding the needs and expectations of customers.
b. **House of Quality (HOQ):** The central tool in QFD is the House of Quality, which is a matrix that helps prioritize customer requirements and link them to the design and production processes.
c. **Matrix Construction:** The House of Quality matrix typically consists of two main parts: the customer requirements (often listed on the left side) and the technical requirements or engineering characteristics (listed at the top).

d. **Relationships and Prioritization:** In the House of Quality, relationships are established between customer requirements and technical requirements. This is done through various numerical scales, often indicating the importance of meeting each customer requirement and the degree to which each technical requirement contributes to fulfilling the customer needs.

e. **Interpretation and Action:** Once the House of Quality is completed, it provides a visual representation of the relationship between customer requirements and technical specifications. This allows the development team to prioritize design features, allocate resources effectively, and make informed decisions throughout the product development process.

f. **Continuous Improvement:** QFD is not a one-time activity but rather a continuous process. It encourages feedback loops and continuous improvement based on customer feedback and changes in technology and market conditions.

By using QFD, organizations can enhance customer satisfaction, improve product quality, and reduce the risk of costly design changes or product failures. It helps bridge the gap between customer expectations and the technical capabilities of the organization, leading to more successful and competitive products and services.

2.3.4. Cost Of Quality(COQ)

The Cost of Quality (COQ) theory is a management framework that helps organizations understand and manage the costs associated with quality. It provides a structured

approach to evaluating both the costs of ensuring quality (conformance) and the costs incurred as a result of poor quality (non-conformance).

Components of the Cost of Quality:

a. **Cost of Conformance:**

i. **Prevention Costs:** These are expenses incurred to prevent defects from occurring in the first place. Prevention costs include investments in quality planning, training, process improvements, supplier quality management, and quality assurance activities.

ii. **Appraisal Costs:** These are the costs associated with evaluating and monitoring product or service quality to ensure conformance to requirements. Appraisal costs include inspection, testing, measurement, and quality audits.

b. **Cost of Non-Conformance:**

i. **Internal Failure Costs:** These are costs incurred as a result of defects found before products or services are delivered to customers. Internal failure costs include rework, scrap, retesting, downtime, and corrective action expenses.

ii. **External Failure Costs:** These are costs resulting from defects found after products or services have been delivered to customers. External failure costs include warranty claims, product recalls, customer complaints, product returns, and loss of reputation or market share.

Objectives and Benefits of COQ:

a. **Cost Reduction**: By understanding the costs of poor quality and investing in prevention and appraisal activities, organizations can reduce overall costs.
b. **Improvement of Processes:** COQ analysis helps identify areas for process improvement and optimization to enhance product or service quality.
c. **Enhanced Customer Satisfaction:**Investing in quality leads to higher customer satisfaction and loyalty, ultimately resulting in increased sales and market share.
d. **Data-Driven Decision Making:** COQ analysis provides valuable data and insights to support decision-making related to quality management and resource allocation.

Implementation of COQ:

a. **Data Collection and Analysis:** Organizations collect data on quality-related costs across various departments and processes.
b. **Cost Identification and Classification:** Costs are categorized into the four components of COQ: prevention, appraisal, internal failure, and external failure.
c. **Cost Measurement and Calculation:** Costs are quantified and measured in monetary terms using accounting methods and tools.
d. **Continuous Improvement:** COQ analysis is an ongoing process that requires continuous monitoring and improvement to drive quality and cost efficiencies.

In conclusion, the Cost of Quality theory offers businesses a thorough framework for comprehending, quantifying, and controlling the expenses related to quality across the

course of a product or service's lifespan. Organizations can increase quality, customer satisfaction, and operational efficiency by implementing COQ concepts.

Theories on Customer Retention

There are various theories on customer retention, but in this study we will be discussing two, which are Four Cs Theory and Customer Switching Theory.

2.3.5. Four Cs Theory

Four Cs Theory was proposed by U.S. marketing expert Robert F.Lauterborn in 1990. It based on customer demand, re-set the four basic elements of marketing mix: consumer, cost, convenience and communication. It stressed that companies should focus on customer satisfaction first, then try to reduce customer purchase costs, and the convenience of buying process and marketing communication. It has great progress and development compared with 4P theory. It attaches to customer-oriented, the pursuit of customer satisfaction as the goal. It is actually important in current situation that consumers play an initiative role.

Tourism product is a kind of service products, with its own feature. Namely: integrated, invisible, synchronization, non-metastatic, vulnerability and heterogeneity. Customers spend time, money and effort to obtain a travel experience, and feeling, and this feeling and experience is as individual as the person. Therefore, it is an emotional spending. In addition, the tourism product is easy to copy, tour companies difficult to use difference strategies. From the practical application of business and market development trends, 4C theory also has inadequacy:

First, 4Cs theory is consumer-oriented, focusing on looking for consumer demand, to meet consumer demand, but there is competition-oriented in market, enterprises can not only see the demand, but also pay an attention to competitors. In order to win in fierce market competition, company should analysis own strengths and weaknesses in the competition and take the appropriate strategy. Secondly, under the guidance of the 4C theory, companies often ignore the long-term profits. So how combine consumer demand and corporate's long-term profit is a big problem to be solved. In this research, we focus on search customer need, pivotal need in different age, use cost rational and improve customer satisfaction. We will combine customer satisfaction and company's long-term profits.

2.3.6. Customer Switching Theory

Customer switching theory sometimes referred to as customer churn theory, studies the reasons behind consumers' product, service, or brand switching. Businesses must comprehend the reasons behind customer attrition and use this knowledge to develop retention and churn rate reduction strategies. Understanding customer switching behavior is essential to this process. The following are important facets of the customer switching theory:

a. **Motives for Making the Switch:** Customers switch for various reasons, including dissatisfaction with the current product or service, better offers or pricing from competitors, changes in personal circumstances, or seeking new features and benefits not available with the current provider.

b. **Perceived Alternatives:** Customers' perceptions of available alternatives influence their propensity to switch. If customers perceive better alternatives elsewhere, they are more likely to switch, especially if they believe the benefits outweigh the costs.

c. **Satisfaction and Loyalty:** Dissatisfied customers are more likely to consider switching providers. Conversely, satisfied and loyal customers are less likely to switch, even when presented with alternatives, as they perceive value and benefits in their current relationship with the provider.

d. **Relationship Quality:** The quality of the relationship between the customer and the provider plays a significant role in customer switching behavior. Factors such as trust, communication, responsiveness, and overall customer experience contribute to the strength of the relationship and influence the likelihood of switching.

e. **Switching Triggers:** Certain events or triggers, such as changes in pricing, service disruptions, or negative experiences, can prompt customers to consider switching providers. Monitoring and addressing these triggers can help businesses mitigate churn risk and retain customers.

f. **Retention Strategies:** Businesses employ various retention strategies to reduce customer churn, including improving product or service quality, offering loyalty programs, providing personalized experiences, and proactive communication to address customer concerns and needs.

By understanding the dynamics of customer switching behavior and addressing key drivers of churn, businesses can implement effective retention strategies to foster

customer loyalty, enhance customer satisfaction, and maintain a competitive edge in the market.

2.4. Empirical Review

The empirical review will be based on related work on product quality and customer retention in manufacturing industries in Nigeria.

2.4.1. Product Reliability

Several studies have investigated the relationship between product reliability and customer retention in diverse industries worldwide. However, the Nigerian manufacturing sector presents its own challenges and opportunities. Research by Ogbeibu and Aduba (2019) highlighted that Nigerian consumers place significant emphasis on product quality and reliability due to past experiences with substandard goods. They found that perceived product reliability positively influences customer loyalty and repurchase intentions. The study surveyed 500 Nigerian consumers across different demographic segments and geographical regions. The study discovered Nigerian consumers prioritize product quality and reliability in their purchasing decisions, with 90% citing these factors as crucial. Past experiences with substandard goods significantly influence consumer perceptions, leading to increased awareness and scrutiny of product quality. Brand loyalty and trust are higher for established brands with a reputation for reliability. Price sensitivity is also a factor, with over 60% willing to pay more for trustworthy brands. Sector-specific variations in product reliability are identified, with industries like electronics, automotive, and household appliances under scrutiny.

Effective after-sales support and positive word-of-mouth recommendations also influence purchasing decisions.

2.4.2. Perceived Product Reliability

A study carried out by Gupta & Singh(2017) on the Role of Perceived Quality, Satisfaction and Trust in Building Customer Retention in the Indian Mobile Phone Industry focused on investigating the role of perceived quality, satisfaction, and trust in building customer retention. It found that perceived quality played a crucial role. The study surveyed a total of 800 customers across various demographics and geographic regions in India who had purchased mobile phones from different manufacturers.Respondents were asked to evaluate the perceived quality of their mobile phones based on factors such as durability, performance, design, and features. Responses were measured using a Likert scale ranging from 1 (Poor) to 5 (Excellent). Participants were queried about their overall satisfaction with their mobile phones, including aspects such as usability, reliability, and value for money. Satisfaction levels were measured using a Likert scale ranging from 1 (Highly Dissatisfied) to 5 (Highly Satisfied).

The findings underscore the need for mobile phone manufacturers to prioritize product quality, enhance customer satisfaction, and cultivate trust to maintain long-term relationships with customers and sustain competitive advantage in the market.

2.4.3. Product conformance

The study by Olayiwola, Akeke, and Odusanya (2019) aimed to investigate the relationship between quality control management practices, particularly product

conformance, and customer retention in Nigerian manufacturing firms. The study surveyed a total of 600 customers from various manufacturing sectors across Nigeria. The research used a quantitative approach, employing surveys or questionnaires to gather data from manufacturing companies and their customers. Respondents were asked to evaluate the degree to which they perceived products from Nigerian manufacturing companies to conform to established standards and specifications. They rated product conformance based on factors such as reliability, durability, consistency, and compliance with specifications. The findings showed a positive correlation between the implementation of quality control practices, including product conformance, and customer retention in Nigerian manufacturing firms. Companies that effectively implemented quality control measures and ensured their products met established standards were more likely to retain customers and build long-term relationships. The study has practical implications for manufacturing companies in Nigeria, emphasizing the critical role of quality control management practices in enhancing customer retention and fostering competitiveness.

2.5. Empirical Gap

Existing studies on reliability, perceived quality and conformance individually lack understanding of their combined impact on customer retention.

CHAPTER THREE

METHODOLOGY

3.1. Introduction

This chapter provides a thorough understanding of the approaches that will be used to address the research questions that have been posed for this study. The purpose of this section was to explain the methodology applied in this study. This chapter was made up of the population, research design and sample, source of data collection, research instrument, operationalisation and measurement of variables and technique of data analysis.

3.2. Research Design

Research design is a blueprint for conducting research, a framework for conducting research that outlines the methods and procedures used to collect and analyze data to address a research question (Creswell 2014).The descriptive survey research design was used for this study. This approach was chosen reason being that it is a survey strategy in which researchers collect quantitative data from a representative sample that describes the attitudes, opinions, perceptions, characteristics, or behaviors of a population(Creswell 2014).

This involves the use of questionnaire to systematically gather information from respondents in order to understand and/or predict a demographic attribute that will be of interest. The descriptive survey research design was used to describe the factors that would provide insight into the study's research issues. By utilizing this method, the

researcher has provided more information regarding product quality and customer retention in manufacturing industries in Nigeria, using Uniben table water in Benin City, Edo state, as a case study.

3.3. The Population and Sample

The population is a group of individuals or object under study from which information about a particular phenomenon or topic of interest will be gathered. The population under study can vary widely and may include individuals within a certain geographical area, age group, gender, socioeconomic status, or those sharing a common characteristic or experience. The target population for this study was made up students of University of Benin, Ugbowo Campus, Benin City, Nigeria. Investigating the entire population is not realistic, therefore a sample is to be taken from the entire population in order to achieve feasible results. A sample is a subgroup chosen strategically to achieve specific research goalsKoppelman and Mavropoulos (2023). It is possible to perform research and analysis in a practical, economical, and efficient manner while still enabling researchers to draw significant conclusions about the population of interest by using a sample rather than the complete population. In this study, the convenient sampling methodwas adopted to determine the sample size. Out of the entire population of Students of the University of Benin, Ugbowo, one-hundred and fifty (150) students will be selected as the sample size for this study. According to Torty (2021), a sample of convenience is the terminology used to describe a sample in which elements have been selected from the target population on the basis of their accessibility or convenience to the researcher.

3.4. Sources of Data

The primary source of data for this study was the dissemination of a questionnaire to the target audience, which consisted of the chosen company's consumers, in order to obtain their responses. The data will be collected from 150 students of the University of Benin, Ugbowo Campus, Benin City, Edo State.

3.5. Research Instrument

To collect the data, a well-organized questionnaire was employed.There are two components to the questionnaire that is given to the representative of the chosen sample. The demographic information of the respondent was contained in Section A, which includes inquiries concerning the respondents' personal information such as gender, age, department and level. while Section B was made up of questions relating to "Product Quality and Customer Retention ", wherein the respondents were asked, using the scales, how much they agreed or disagreed with the questions.The questions were scored using a five (5) point likert scale with weights assigned as follows: SA(StronglyAgree), A(Agree), U(Undecided), D (Disagree), SD (Strongly Disagree).

3.5.1. Reliability of Research Instrument

reliability is the degree to which an assessment produces consistent results across different administrationsWright & Powers (2023). It is the degree to which measures and processes may be repeated to produce the intended outcomes. The research instrument's dependability was determined. The instrument's reliability was assessed using the Pearson Correlation Coefficient. This statistic measures the strength and direction of a

linear relationship between two variables. In this case, it assesses the consistency of scores obtained using the research instrument. A high positive correlation coefficient indicates that scores tend to be similar when the instrument is used repeatedly. With a co-efficient of 0.68, the research tool will be shown to be reasonably reliable. According to Taber (2017) the range of a reasonable reliability is between 0.67 and 0.87. This is done using SPSS version 22.

3.5.2. Validity of research instrument

Validity is the extent to which a measure reflects the true score of the variable being investigated, minimizing the influence of errors DeVellis (2017). To confirm the validity of the study's instrument. The researcher ensured that the tool evaluates the concepts for which it was designed. The questionnaire was carefully created by the researcher, and the study's validity will be confirmed by the supervisor, a specialist in business administration.The final instrument will be made using his suggestions and guidance.The questionnaire was written in straightforward language, making it easy for respondents to understand and give a quick, objective response.

3.6. Theoretical Framework and Model Specification

The design of the study's model allowed for the empirical estimation of the different causal relationships outlined in the study's first chapter. Using a regression equation stated below to capture all the dependent variables and independent variable as used in the study of Ofosuhene and Sammo (2020) we have thus a simple linear regression model as follows:

Y = dependent variable (Customer Retention).

a = the constant or the intercept

b = the regression coefficient

X= the independent variable (Product Quality: Product Reliability, Perceived Product Quality, Product Conformance).

E= Stochastic term

3.7. Operationalisation of Variables Definition of Terms

Operationalisation suggested that the relationship between product reliability, perceived product quality, product conformance and customer retention was constructed from extant literature. The sub-sections for the operationalization of the variables were organized according to the study's objectives. The following table lists and defines the variables that were utilized in the study:

Table 3.1: Operationalisation of Variables

S/N	Variables	Definition/Operationalisation	Questions
1	Product reliability	The degree to which a product reliably fulfills its intended purpose within a certain time frame and under typical operating conditions is referred to as product reliability. It is a gauge of how likely it is that a product will function properly and not break down in a specific amount of time.	Section B Q1 - Q5
2	Perceived product quality	Perceived product quality refers to the subjective evaluation or judgment that consumers make about the quality of a product based on their perceptions, experiences, and expectations. It encompasses various	Section B Q6 - Q10

		aspects such as durability, reliability, aesthetics, functionality, and overall satisfaction.	
3	Product conformance	Product conformance refers to the degree to which a product meets specified standards, requirements, or expectations. It involves ensuring that the product is produced or manufactured according to the predetermined specifications, standards, and quality criteria set by the company or relevant regulatory bodies. Product conformance is essential for maintaining consistency, reliability, and customer satisfaction.	Section B Q10- Q15
4	Customer retention	Customer retention refers to the strategies and actions taken by businesses to retain existing customers and encourage repeat purchases or continued engagement with their products or services.	Section B Q16 - Q20

Source: Authors Compilation, 2024.

3.8. Method of Data Analysis

Data analysis is the process of inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, informing conclusions, and supporting decision-making (Wixom, 2017; Provost & Fawcett, 2013).

The data collected from the field survey will be analyzed by the study utilizing both descriptive and inferential statistics . The field survey respondents' replies will be presented as a linear graph and frequency table. To test the hypotheses of this study, Regression analysis was used prove the validity of the hypotheses. The statistical software for the social sciences (SPSS) version 22 will be used for the study's estimation.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

This chapter presents the analysis, results, and findings of the data obtained fromrespondents through the administration of questionnaire on product quality and customer retention in manufacturing companies in Nigeria, using Uniben table water as a case study.

Table 4.1: Questionnaire Administration

Administered	Retrieved	Not Retrieved	Return rate
150	150	-	100%

Source: Researcher's fieldwork, 2024.

The table above shows the proportion of questionnaires retrieved from the respondents. A total of 150 questionnaire was distributed to students within the Ugbowo campus axis of the university of Benin by the researcher as obtained from the sample size and all were duly retrieved and used for the analysis.

4.2. Demographics of Respondents

This section contains a descriptive analysis of the socio-demographic data drawn from the sampled respondents. The socio-demographic variables includes the gender, age, department and academic level of the respondents.

Table 4.2: Respondents Demographic Profile

S/N	Categories	Responses	
		Frequency	**%**
1.	**Gender**		
	Male	80	53.3
	Female	70	46.7
	Total	**150**	**100**
2.	**Age**		
	Below 20 years	20	13.3
	20-25 years	103	68.7
	26-30 years	26	17.3
	Above 30 years	1	0.7
	Total	**150**	**100**
3.	**Department**		
	Business Administration	61	40.7
	Banking and Finance	18	12.0
	Accounting	14	9.3
	Marketing	11	7.3
	Insurance	18	12.3
	Human Resource Management	16	10.7
	Actuarial Science	12	8.0
	Total	**150**	**100**
4.	**Academic Level**		
	100 Level	6	4.0
	200 Level	19	12.7
	300 Level	51	34.0
	400 Level	74	49.3
	Total	**150**	**100.0**

Source: Researcher's Field work, 2023

Gender Of Respondents

Results presented in table 4.2 above showed that 53.3% of the respondents were male; and 46.7% were female. This indicates that majority of the respondents were male.

Age of Respondents

The age distribution of the respondents showed that 13.3% were in ages below 20 years; 68.7% were in ages between 20-25 years; 17.3% within the ages of 26-30 years, and 0.7% above 30 years of age.

Department

Data on the respondents' department showed that majority of the respondents who responded to the questionnaire were in the department of business administration with a 40.7% representation. 12% were from the department of Banking, 8.3% from Marketing, 7.3% from insurance department, 12.0% from Actuarial science, 10.7% from Human resources department, and 8.0% from the department of Entrepreneurship.

Academic Level

Data on the academic level of the respondents showed that 49.3% were in their final year of study (400 level), 34.6% in 300 level, 12.7% in 200 level, and 4.0% in 100 level.

4.3. Descriptive Statistics

This section presented the descriptive (Frequency, percentage and mean) of respondents' responses to statements on the research instrument (Questionnaire).

4.3.1. Descriptive Statistics of Product Quality of Uniben table water

This section provides a descriptive analysis of the perception of product quality of uniben table water among the respondents measure under product reliability, perceived product quality, and product conformance. The descriptive mean, frequency, and simple percentage were employed in analyzing the data obtained from the respondents.

Table 4.3: Product Quality of Uniben Table water

S/N	Statement	SA	A	UN	D	SD	Mean	Remark
Product Quality								
	Product Reliability							
8.	I am more likely to continue purchasing Uniben table water if it consistently maintains its quality and reliability.	46 (30.7 %)	49 (32.7%)	24 (16.0%)	13 (8.7%)	18 (12.0%)	3.61	Agreed
9.	Reliable performance of Uniben table water influences my decision to remain a loyal customer.	45 (30.0 %)	52 (34.7%)	21 (14.0%)	21 (14.0%)	11 (7.3%)	3.66	Agreed
10.	The reliability of Uniben table water impacts my overall satisfaction and likelihood to repurchase	47 (31.3 %)	56 (37.3%)	15 (10.0%)	20 (13.3%)	12 (8.0%)	3.71	Agreed
11.	Consistent taste and purity of Uniben table water contribute to my loyalty as a customer	41 (27.3 %)	55 (36.7%)	19 (12.7%)	23 (15.3%)	12 (8.0%)	3.60	Agreed
12.	Customers are more likely to continue purchasing UNIBEN Table Water if they consistently experience reliable	61 (40.7 %)	60 (40.0%)	15 (10.0%)	8 (5.3%)	6 (4.0%)	4.08	Agreed

	packaging that prevents leaks or spills							
	Overall mean for Product Reliability	**48 (32.0 %)**	**54.4 (36.27%)**	**18.8 (12.53 %)**	**17 (11.33 %)**	**11.8 (7.87%)**	**3.73**	**Agreed**
	Perceived product quality							
13.	High perceived quality of Uniben table water increases my satisfaction and loyalty as a customer.	48 (32.0 %)	59 (39.3%)	17 (11.3%)	17 (11.3%)	9 (6.0%)	3.80	Agreed
14.	The perceived quality of Uniben table water affects my perception of its value.	60 (40.0 %)	57 (38.0%)	15 (10.0%)	13 (8.7%)	5 (3.3%)	4.03	Agreed
15.	I am more likely to remain a loyal customer if Uniben table water consistently meets or exceeds my quality expectations.	65 (43.3 %)	60 (40.0%)	14 (9.3%)	6 (4.0%)	5 (3.3%)	4.16	Agreed
16.	My perception of the quality of Uniben table water influences my decision to continuing buying it.	51 (34.0 %)	69 (46.0%)	12 (8.0%)	14 (9.3%)	4 (2.7%)	3.99	Agreed

17.	Positive word-of-mouth about UNIBEN Table Water's quality leads to increase in my satisfaction and retention rate.	43 (28.7 %)	60 (40.0%)	16 (10.7%)	24 (16.0%)	7 (4.7%)	3.72	Agreed
	Overall mean for Perceived product quality	**53.4 (35.6 %)**	**61 (40.67%)**	**14.8 (9.87%)**	**14.8 (9.87%)**	**6 (4.0%)**	**3.18**	**Agreed**
	Product Conformance							
18.	The absence of defects or impurities in UNIBEN Table Water reinforces my trust in the brand, contributing to long-term retention.	47 (31.3 %)	67 (44.7%)	15 (10.0%)	12 (8.0%)	9 (6.0%)	3.87	Agreed
19.	The degree to which Uniben table water conforms to its promised specifications influences my decision to remain a customer.	50 (33.3 %)	58 (38.7%)	22 (14.7%)	14 (9.3%)	6 (4.0%)	3.88	Agreed
20.	The level of product conformance of Uniben table water impacts my trust and loyalty as a customer.	45 (30.0 %)	55 (36.7%)	32 (21.3%)	14 (9.3%)	4 (2.7%)	3.82	Agreed
21.	If Uniben table water consistently	55 (36.7	67 (44.7%)	16 (10.7%)	9 (6.0%)	3 (2.0%)	4.08	Agreed

	meets its quality standards, I am more likely to continue purchasing it.	%)						
22.	Product conformance of Uniben table water to its stated standards affects my satisfaction and loyalty.	48 (32.0 %)	69 (46.0%)	22 (14.7%)	6 (4.0%)	5 (3.3%)	3.99	Agreed
	Overall mean for Product Conformance	**49 (32.6 7%)**	**63.2 (42.13%)**	**21.4 (14.27 %)**	**11 (7.33%)**	**5.4 (3.6%)**	**3.93**	**Agreed**
	Overall mean for Product Reliability						3.73	Agreed
	Overall mean for Perceived product quality						3.18	Agreed
	Overall mean for **Product Conformance**						3.93	Agreed
	Grand Mean for Product Quality						**3.61**	**Agreed**

N=150; Key: 1.00 – 2.5 = Disagreed; 2.6 and above = Agreed

Source: Researcher's estimation from SPSS 22, 2024.

Table 4.3 presents data on the perception of product quality of uniben table water among the respondents. The variable was measured under three dimensions; product reliability, perceived quality and product performance.

Product Reliability

Product reliability refers to the ability of a product to perform its intended function consistently under normal operating conditions for a specified period of time, without failure or breakdown. It relates to the dependability and consistency of a product's performance over its lifespan, reflecting its ability to meet customer expectations and deliver value without unexpected failures or defects. Analysis of the data collected showed an average of 68.27% of the respondents agreed and strongly agreed to the items in the questionnaire, 12.53% were undecided, while a total of 19.2% of the respondents disagreed and strongly disagreed to the statements. More so, the overall mean of 3.73 indicates a general consensus among the respondents on a moderate level of product reliability of uniben table water.

Perceived Product Quality

Results in table 4.3 measuring the respondents' perception of product quality of uniben table water showed that 74.8% agreed and strongly agreed to the items in the research instrument; whereas, 13.87% disagreed and strongly disagreed; while 14.8% were undecided. The overall mean value 3.18 showed that the respondents have a relative moderate positive perception of product quality of uniben table water.

Product Conformance

Product conformance refers to the degree to which a product meets specified standards, requirements, or expectations. It encompasses how closely a product adheres to design specifications, regulatory standards, industry norms, and customer needs. The result of

the analysis showed that an average of 74.8% of the respondents were in agreement to the items measuring the level of conformance of uniben table water to prescribed standards; 10.93% were in disagreement; while 14.27% were undecided. Overly, the group mean of 3.93 indicates a strong agreement from the respondents that the product conforms to prescribed standards.

Conclusively, the overall mean of all three dimensions showed an average mean value of 3.61. This clearly indicates a positive perception of the product quality of uniben table water among the respondents.

4.3.2. Descriptive Statistics of Customer Retention

This section presents a descriptive analysis of customer retention in uniben table water. The statistical descriptive mean, frequency and simple percentage was utilized in analyzing the data.

Table 4.4: Customer Retention

S/N	Statement	SA	A	UN	D	SD	Mean	Remark
Customer Retention								
23.	Customers who consistently purchase UNIBEN Table Water are more likely to exhibit brand loyalty and	52 (34.7%)	57 (38.0%)	19 (12.7%)	17 (11.3%)	5 (3.3%)	3.89	High

	continue patronizing the product over time.							
24.	The quality and reliability of UNIBEN Table Water's packaging and delivery influence customers' decision to remain loyal to the brand and repurchase the product.	46 (30.7%)	68 (45.3%)	22 (14.7%)	11 (7.3%)	3 (2.0%)	3.95	Moderate
25.	Positive experiences with UNIBEN Table Water's taste, purity, and consistency contribute to higher levels of customer satisfaction and retention.	47 (31.3%)	66 (44.0%)	20 (13.3%)	9 (6.0%)	8 (5.3%)	3.90	Low
26.	Regular engagement	49 (32.7%)	64 (42.7%)	23 (15.3%)	10 (6.7%)	4 (2.7%)	3.96	12 (11.7%)

	and communicati on with customers, such as through loyalty programs or personalized offers, enhance UNIBEN Table Water's ability to retain its customer base.							
27.	Effective resolution of customer concerns or complaints by UNIBEN Table Water's customer service team fosters trust and strengthens customer relationships, leading to increased retention	45 (30.0%)	80 (53.3%)	13 (8.7%)	7 (4.7%)	5 (3.3%)	4.02	12 (11.7%)

	rates.							
	Overall mean for Product Reliability	**47.8 (31.87%)**	**67 (44.67%)**	**19.4 (12.93%)**	**10.8 (7.2%)**	**5 (3.33%)**	**3.94**	**Moderate**

N=150; Key: 1.00 – 2.5 = Disagreed; 2.6 and above = Agreed

Source: Researcher's estimation from SPSS 22, 2024.

Data obtained from Table 4.4 showed that an average of 76.54% of the respondents agreed and strongly agreed to items in the research instrument, whereas, 10.53% of the respondents disagreed and strongly disagreed to the statements, while 12.93% were undecided. Consequently, the grand mean of 3.94 (on a 5 point scale) indicates a strong agreement to the items in the research instrument. This implies a high level of customer retention in uniben table water.

4.4. Regression Analysis and Hypotheses Testing

This section examines the linear relationship between the Independent variable (product quality) and the dependent variables (customer retention). For emphasis, it measure the extent to which the perception of product quality of uniben table water is likely to impact on its customer retention. The multiple linear regression model was employed in ascertaining the relationship between the aforementioned variables.

Table 4.5: Model Summary on Relationship Between Product quality and customer retention

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.880[a]	.774	.770	.41226	2.454

a. Predictors: (Constant), Product conformance, Product Reliability, Perceived Quality

b. Dependent Variable: Customer Retetion

Source: Researcher's Fieldwork (2024)

Table 4.5 above shows the model summary result from the regression output. The Rsquare value shows the extent to which an independent variable explains the variations (or changes) in the dependent variable. The Rsquare value of 0.774 indicates that the explanatory/independent variable (product quality) explains approximately 77% of the variations in the dependent variable (customer retention), while 23% of the variations (in the dependent variable) is explained by other variables/factors not listed in the study. Thissuggests a reasonably strong ability of the model to provide explanations, suggesting that it was meticulously and accurately developed. And as such, its outcomes are trustworthy in arriving at a conclusion. Also, the Durbin-Watson statistic serves as a signal for detecting auto-correlation issues within the model. Following its criterion, which states that the closer the statistic is to 2, the less likely there is auto-correlation, the value of 2.454 signifies the absence of auto-correlation problems in the model.As a result, the model's effectiveness is assured.

Table 4.6: Analysis Of Variance Of The Relationship Product Quality and Customer Retention in Uniben Table Water

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	85.177	3	28.392	167.052	.000[b]
	Residual	24.814	146	.170		
	Total	109.992	149			

a. Dependent Variable: Customer Retention

b. Predictors: (Constant), Product conformance, Product Reliability, Perceived Quality

Source: Researcher's Fieldwork (2024)

Table 4.6 shows the analysis of variance (ANOVA) result on the relationship between product quality and customer retention of uniben table water. The F statistics shows a value of 167.052 indicating strong evidence against the null hypotheses. More so, the corresponding P-value of 0.000 (at <5% significance level) suggests a statistically significant relationship between product quality and customer retention.

Table 4.7: Multiple Regression Coefficientof the Relationship Between Product Quality and Customer Retention.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.532	.163		3.265	.001
	Product Reliability	.116	.072	.140	1.617	.108
	Perceived Quality	.341	.093	.354	3.651	.000
	Product conformance	.417	.079	.426	5.304	.000

a. Dependent Variable: Customer Retention

Source: Researchers's Fieldwork (2024)

Table 4.7 shows the multiple regression output for the study variables at 5% significant level. Analysis of the data showed that product reliability had a p-value of 0.108and a t-value of 1.617; this indicates an absence of a statistical relationship between product reliability and customer retention. Whereas the t-value suggests a positive association between both variables, the unstandardized coefficients explains that a .116 increase in product reliability will result in only a .072 increase in customer retention.

Conversely, the results suggests a significant relationship between perception of quality of a product and customer retention given the p-value of 0.000 and a corresponding t-value of 3.651 suggesting a positive association between both variables such that as the perception of quality increases for a product, customer retention will likely increase correspondingly.

More so, the result indicates a significant relationship between product conformance and customer retention with a probability value of 0.000 and a t-value of 5.304 (at <5% level of significance).

Test of Hypothesis

The research hypotheses were tested utilising regression analysis in order to achieve the current study's objectives. The hypotheses were evaluated with an Alpha level of significance of 0.05 (Decision rule: computed level of significance <0.05, reject null hypothesis; computed level of significance >0.05, accept null hypothesis).

H_o: Null Hypothesis

H_1: Alternative Hypothesis

Hypothesis One

H_0: There is no significant relationship between productreliability and customer retention.

H_1: There is significant relationship between product reliability and customer retention.

The regression output on the relationship between product reliability and customer retention showed a p-value of .108 which is above critical level (at 5% level of significance). This shows an absence ofa statistically significant relationshipbetween product reliability and customer retention. Hence, the null hypothesis which states that

“There is no significant relationship between productreliability and customer retention” is not rejected.

Hypothesis Two

H_0: There is no significant relationship between perceived quality and customer retention.

H_1: There is significant relationship between perceived quality and customer retention

Regression result on table 4.5 showed that perceived quality had a p-value of 0.000 which explains the existence of a significant relationship between perceived quality of a product and customer retention. Therefore, the null hypothesis which states “There is no significant relationship between perceived quality and customer retention” is rejected.

Hypothesis Three

H_0: There is no significant relationship between product conformance and customer retention.

H_1: There is significant relationship between product conformance and customer retention.

The analysis result suggests strong evidence of a statistically significant relationship between product conformance and customer retention. Hence, the null hypothesis that states “There is no significant relationship between product conformance and customer retention” is rejected.

4.5. Discussion of Findings

This study investigated product quality and customer retention of uniben table water. To guide the study, three research questions and three hypothesis carefully crafted along the

study objectives was raised. The study adopted a descriptive survey research design which involved the administration of structured questionnaire to undergraduate students of the university of Benin, Benin city, Edo state. A sample of 150 students were randomly selected for the study. Data obtained were analyzed using descriptive statistic, mean, simple frequency and percentage; while the multiple linear regression analysis was utilized in ascertaining the relationship between the study variables.

Findings obtained after due analysis of the data retrieved from the respondents showed that;

Undergraduate students have positive perception of product reliability of uniben table water. They perceive that the product conforms to predefined standards and of a good quality. Generally, product quality of uniben table water was found to be high as much as the product's level of customer retention.

There is positive and significant relationship between product quality and customer retention of uniben table water. This aligns with the study of Bhat & Lone (2022), who in their found product quality as a catalyst for customer loyalty and retention. More so, Bhowmick & Seetharaman (2023), identified product quality as a critical factor for customer satisfaction and retention. When customer perceives a product to possess desirable qualities, they are likely remain loyal to such products overtime (Fida et al., 2020).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter provides a succinct summary of the findings derived from the data analysis. The chapter is organized as follows: summary of findings, study conclusion, study recommendations, contribution to knowledge, and suggestions for future research.

5.2. Summary of Findings

The overall purpose of the study is to examine product reliability and customer retention of Uniben table water at Ugbowo within Ovia north east Local Government Area of Benin City, Nigeria. The study targeted a sample of one hundred and fifty (150) respondents, in which 150 copies of questionnaire was distributed, and the same 150 copies were filled and retrieved and used for this study. The data collected was analyzed using SPSS version 22 and descriptive statistics was used to present the results while regression test was employed to make findings on the research hypotheses.

These are the findings on the assessment of product quality and customer retention :

i. The study revealed that there is no significant relationship between product reliability and customer retention.
ii. Furthermore, the study revealed that there is significant relationship between perceived product quality and customer retention.

iii. Also, the study revealed that there is significant relationship between product conformance and customer retention.

iv. Finally, the study revealed that a significant correlation exists between product quality and customer retention in Uniben table water.

5.3. Conclusion

Product quality and customer retention have garnered significant academic interest due to their direct impact on profit growth. Companies compete based on quality, customers seek quality, and markets are transformed by quality. Quality is a crucial factor in delighting customers, increasing firm profitability, and driving the economic growth of nations (Deming, 1982). For the survival and success of business operations, quality is considered an essential component of any competitive marketing strategy. Superior product quality maintains high customer satisfaction levels, which encourages customers to make subsequent purchases, thereby gradually forming customer loyalty. Loyal customers are willing to pay more, express higher purchase intentions, resist switching, and also promote the products and services to their friends and associates.

5.4. Recommendations

Based on the study's findings, the following recommendations are proposed:

1. Organizations should focus on maintaining and enhancing quality standards across their product lines. This can be achieved by implementing regular quality checks and promptly addressing any identified issues to maintain positive customer perceptions of product reliability.

2. Businesses should establish effective systems for collecting customer feedback, especially from target demographics. This feedback will help identify areas for quality improvement and enhance the overall customer experience.
3. Firms should highlight and communicate the key quality attributes of products to consumers through marketing and promotional efforts. Emphasizing adherence to standards, reliability, and product integrity can reinforce customer trust and loyalty.
4. Businesses should create customer engagement initiatives and loyalty programs designed to retain customers. Rewarding repeat purchases or engagement with the brand can cultivate stronger customer relationships and promote retention.
5. Business firms could benchmark against industry leaders and adopt best practices to continuously improve product quality and customer service. Studying successful case studies can provide actionable strategies for enhancing customer retention.

REFERENCES

Akao, Y. (1990). Quality function deployment: integrating customer requirements into product design. Productivity Press.

Bhat, Mushtaq Ahmad & Lone, Rafi Ahmad. (2022). Product Quality and Customer Loyalty: A Reviewof literature. 12. 2249-1058.

Bhowmick, Anuj & Seetharaman, A.. (2023). Impact of product quality on customer satisfaction: A Systematic Literature Review. 10.1145/3603421.3603434.

Bloemer, J., de Ruyter, K., & Wetzels, M. (1999). Linking perceived service quality and service loyalty: A multi-dimensional perspective. European Journal of Marketing, 33(11/12), 1082-1106.

Boyer, K. W., & Verma, A. (2004). Operations & Supply Chain Management for the 21st Century. South-Western Educational Publishing.

Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). Sage Publications

Edward, M., & Sahadev, S. (2011). Customer retention in Indian retail banking: A cognitive antecedents perspective. International Journal of Bank Marketing, 29(1), 5-31.

Fida, B. A., Ahmed, U., Al-Balushi, Y., & Singh, D. (2020). Impact of service quality on customer loyalty and customer satisfaction in Islamic banks in the Sultanate of Oman. Sage Open, 10(2). https://doi.org/10.1177/2158244020919517

Garvin, D. A. (1987). Competing on the Eight Dimensions of Quality. Harvard Business Review, 65(6), 101-109.

Gupta, A., & Singh, R. (2017). Role of perceived quality, satisfaction and trust in building customer retention: Evidence from the Indian mobile phone industry. International Journal of Research in Management, Science & Technology, 5(2), 13-22.

Gupta, S., Zeithaml, V., & Etzel, M. J. (2006). Customer Lifetime Value Concepts and Tools (First ed.). Edward Elgar Publishing.

Heizer, J. H., & Render, B. (2021). Operations Management: Sustainability and Supply Chain Management (14th ed.). Pearson.

Juran, J. M., & Gryna, F. M. (1988). Juran's quality control handbook. McGraw-Hill.

Keaveney, S. M. (1995). Customer switching behavior in service industries: An exploratory study. Journal of Marketing, 59(2), 71-82.

Kotler, P., & Armstrong, G. (2021). Principles of Marketing (19th ed.). Pearson.

Krajewski, L. J., Ritzman, L. P., & Malhotra, M. K. (2016). Operations Management: Processes and Supply Chains (11th ed.). Pearson.

Lauterborn, R. F. (1990). New marketing litany: Four Ps passe; C-words take over. Advertising Age, 61(41), 26.

Lovelock, C. H., & Wirtz, J. (2017). Services Marketing: People, Technology, Strategy (8th ed.). Pearson.

McCarthy, E. J., & Perreault, W. D. (1993). Basic Marketing: A Global Managerial Approach (11th ed.). McGraw-Hill.

McKinsey & Company. (2023). Building customer retention through exceeding expectations.

Oakland, J. S. (2003). Total quality management: text with cases. Butterworth-Heinemann.

Ogbeibu, S. C., & Aduba, U. G. (2019). The impact of product reliability on customer retention in the Nigerian manufacturing sector. International Journal of Management Sciences and Business Research, 8(3), 1-14.

Olayiwola, J., Akeke, N., & Odusanya, O. (2019). Quality control management practices and customer retention in Nigerian manufacturing firms: The mediating role of product conformance. Journal of Business Administration and Management, 1(1), 45-60.

Provost, F., & Fawcett, T. (2013). Data science for business: What you need to know about data mining and data-analytic thinking. O'Reilly Media.

Shaibu, I.B.N. (2016). Production and operations management. Benin City, Nigeria: ACME Publishers

Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. Journal of Marketing, 66(1), 15-37.

Slack, N., Chambers, S., & Johnston, R. (2010). Operations Management (6th ed.). Pearson Education Limited.

Taguchi, G. (1986). Introduction to quality engineering: designing quality into products and processes. Asian Productivity Organization.

APPENDIX

QUESTIONNAIRE

DEPARTMENT OF BUSINESS ADMINISTRATION,

FACULTY OF MANAGEMENT SCIENCES,

UNIVERSITY OF BENIN,

BENIN CITY,

EDO STATE.

Dear Respondent,

March, 2024.

APPEAL FOR THE COMPLETION OF QUESTIONNAIRE

I am an undergraduate student of the above-named department and institution. As part of the requirements for my degree programme, I am conducting a research on "Product Quality and Customer Retention in Manufacturing Companies in Nigeria". In this regard, you have been randomly selected as a member of the sample.

Please provide your honest thoughts on the study topic by filling out the form. I pledge to treat your response with the utmost confidentiality and to use it only for the intended academic purpose.

Thank you for your cooperation.

_____

Yours Faithfully,

Amegor Etinosa

SECTION 1: DEMOGRAPHIC INFORMATION

1. Gender: Male ( ) Female ( )
2. Age: below 20 ( ) 20-25 ( ) 26-30 ( ) above 30 ( )
3. Department:_____
4. Level:_____

SECTION B: THE CORE SUBJECT MATTER

By TICKING (✓) in the appropriate box from (1 - 5) where:

1= Strongly Agree (SA)

2= Agree (A) ;

3= Undecided (U);

4= Disagree (D)

5= Strongly Disagree (SD)

S/N	PRODUCT RELIABILITY	SA	A	U	D	SD
1.	I am more likely to continue purchasing Uniben table water if it consistently maintains its quality and reliability.					
2.	Reliable performance of Uniben table water influences my decision to remain a loyal customer.					
3.	The reliability of Uniben table water impacts my overall satisfaction and likelihood to repurchase					
4.	Consistent taste andpurity of Uniben table water contribute to my loyalty as a customer					
5.	Customers are more likely to continue purchasing UNIBEN Table Water if they consistently experience reliable packaging					

	that prevents leaks or spills					
	PERCEIVED PRODUCT QUALITY					
6.	High perceived quality of Uniben table water increases my satisfaction and loyalty as a customer.					
7.	The perceived quality of Uniben table water affects my perception of its value.					
8.	I am more likely to remain a loyal customer if Uniben table water consistently meets or exceeds my quality expectations.					
9.	My perception of the quality of Uniben table water influences my decision to continuing buying it.					
10.	Positive word-of-mouth about UNIBEN Table Water's quality leads to increase in my satisfaction and retention rate.					
	PRODUCT CONFORMANCE					
11.	The absence of defects or impurities in UNIBEN Table Water reinforces my trust in the brand, contributing to long-term retention.					
12.	The degree to which Uniben table water conforms to its promised specifications influences my decision to remain a customer.					
13.	The level of product conformance of Uniben table water impacts my trust and loyalty as a customer.					
14.	If Uniben table water consistently meets its quality standards, I am more likely to continue purchasing it.					
15.	Product conformance of Uniben table water to its stated standards affects my satisfaction and loyalty.					
	CUSTOMER RETENTION					
16.	Customers who consistently purchase UNIBEN Table Water					

	are more likely to exhibit brand loyalty and continue patronizing the product over time.					
17.	The quality and reliability of UNIBEN Table Water's packaging and delivery influence customers' decision to remain loyal to the brand and repurchase the product.					
18.	Positive experiences with UNIBEN Table Water's taste, purity, and consistency contribute to higher levels of customer satisfaction and retention.					
19.	Regular engagement and communication with customers, such as through loyalty programs or personalized offers, enhance UNIBEN Table Water's ability to retain its customer base.					
20.	Effective resolution of customer concerns or complaints by UNIBEN Table Water's customer service team fosters trust and strengthens customer relationships, leading to increased retention rates.					